# **EXHIBIT A**

Name: Cristobal Guillermo dos Remedios

# Qualifications:

B.Sc. (1965, Univ. Sydney); Ph.D. (1969, Univ. Sydney), D.Sc. (1995, Univ. Sydney)

# **Current Appointments:**

Professor of Anatomy & Biophysics (appointed 2001)

Department of Anatomy & Histology,

University of Sydney (appointed 1974, Assis/Prof 1980-2000)

Director, Muscle Research Unit, Department of Anatomy & Histology, University of Sydney (1974-present)

# **Past Appointments:**

US Biophysical Society, Member of Council (1998-2003), elected to Executive, (2003-2004). Member of International Committee (2003-2006)

Director, Institute for Biomedical Research, Univ Sydney (1997-1999)

Associate Dean, Univ Sydney (1999-2001)

Associate Professor of Anatomy, Univ Sydney, 1980-2000

Senior Lecturer, Univ of Sydney, 1974-1979

Senior Lecturer, Univ of New South Wales 1972-1974

Career Investigator Fellow, American heart Association, 1969-1972.

#### **National and International Professional Societies**

IUPAB: Vice-President (2002-2004), and a member of Council (1996-present)US Biophysical Society, 1972-present Member of Council 1999-2002, Member of National Executive 2002-2004, Editorial Committee 2006-

Australian Society for Biophysics, 1978-present, President 1995-1997

National Committee for Biophysics of the Australian Academy of Science, member 1989-91, Chair 1995-2001.

Australian Society for Medical Research, 1987-present

Australian Physiological and Pharmacological Society, 1983-present

International Society for Heart Research, 1998-present

Australian Science Communicators, 2000-present

Anatomical Society of Australia and New Zealand, 1972-present

#### Awards, Honours

Career Investigator Fellow, American Heart Association, 1970-1972

Louis N Katz Prize for young investigators, American Heart Association, 1971

Publication #1 cited in top 50 papers in muscle research by the Journal of Muscle Research & Cell Motility

Invited symposia/lectures (recent): International Union for Pure and Applied Biophysics, Delhi 2004, Buenos Aires 2004; British Proteomics Society 2006; Japanese Biophysical Society 2006; Aust & NZ Society for Clinical Cardiology, 2006; University of Maryland 2006; University of Miami School of Pharmacology 2006.

Distinguished Cardiovascular Lectureship, University of California Los Angeles 2006. Visiting Professor, Mayo School of Medicine;

Australian Society for Biophysics, Bob Robertson Medal (2007).

### **Membership of Editorial Boards**

Electrophoresis

Proteomics

Proteomics Clinical Applications

European Biophysics Journal

Associate Editor of 1996-2003

Editorial Board, 2003-present

Editorial Board, 2007-present

Editorial Board, 2003

Biophysics Editorial Board, Biophysical Society of Japan, 2005- present Biophysical Journal Editorial Board, 2006-2008

Journal of Biophysics Editorial Board, 2008-

## **Publications**

**Published papers** (#1 paper was cited as one of the 50 important papers in the history of muscle research and myosin motility. *Journal of Muscle Research and Cell Motility* 25: 475-479).

- 1. dos Remedios CG, Millikan RGC, Morales MF. (1972) Polarization of tryptophan fluorescence from single striated muscle fibres. A molecular probe of contractile state. *The Journal of General Physiology* 59: 103-120.
- 2. dos Remedios CG, Yount RG, Morales MF. (1972) Individual states in the cycle of muscle contraction. *Proceedings of the National Academy of Sciences of the United States of America* 69: 2542-2546.
- 3. Botts J, Cooke R, dos Remedios CG, Duke J, Mendelson R, Morales MF, Tokiwa T, Viniegra G, Yount R. (1973) Does a myosin cross-bridge progress arm-over-arm along the actin filaments? Cold Spring Harbor Symposium on Quantitative Biology 37: 195-200.
- 4. McGrath PA, dos Remedios CG. (1974) The dependence of rigor tension on sarcomere length in vertebrate muscle. *Experientia* 30: 1036-1038.
- 5. dos Remedios CG. (1976) Lanthanide ions and skeletal muscle sarcoplasmic reticulum. *Journal of Biochemistry* 81: 703-708.
- 6. dos Remedios CG. (1977) Ionic radius selectivity of skeletal muscle membranes. *Nature* 270: 750-751.
- 7. dos Remedios CG, Barden JA. (1977) Effects of Gd(III) on G-actin: Inhibition of polymerization of G-actin and activation of myosin ATPase activity by Gd-G-actin. *Biochemical and Biophysical Research Communications* 77: 1339-1346.
- 8. Hambly BD, dos Remedios CG. (1977) Responses of skeletal muscle fibres to lanthanide ion. Dependence of the twitch response on ionic radii. *Experientia* 33: 1042-1043.
- 9. dos Remedios CG, Gilmour D. (1978) Is there a third type of filament in striated muscle? *Journal of Biochemistry* 84: 235-238.
- 10. dos Remedios CG, Dickens MJ. (1978) Actin microcrystals and tubes formed in the presence of gadolinium ions. *Nature* 276: 731-733.
- 11. Barden JA, dos Remedios CG. (1978) Evidence for the non-filamentous aggregation of actin induced by lanthanide ions. *Biochimica et Biophysica Acta* 537: 417-427.
- 12. Barden JA, dos Remedios CG. (1979) Binding stoichiometry of gadolinium to actin: Its effect on the actin-bound divalent cation. *Biochemical and Biophysical Research Communications* 86: 529-535.
- 13. Barden JA, dos Remedios CG. (1980) Structural similarities and differences between crystalline actin aggregates formed in the presence of the lanthanide ions. *Micron* 11: 285-286.

- 14. Barden JA, dos Remedios CG. (1980) Crystalline actin tube. I Is the conformation of the lanthanide-induced actin tube monomer more like F-actin than G-actin? *Biochimica et Biophysica Acta* 624: 163-173.
- 15. dos Remedios CG, Barden JA, Valois AA. (1980) Crystalline actin tubes. II The effect of various lanthanide ions on actin tube assembly. *Biochimica et Biophysica Acta* 624: 174-186.
- 16. Cartmill JA, dos Remedios CG. (1980) Ionic radius specificity of cardiac muscle membranes. *Journal of Molecular and Cellular Cardiology* 12: 219-223.
- 17. Barden JA, Cooke R, Wright PE, dos Remedios CG. (1980) Proton nuclear magnetic resonance and electron paramagnetic resonance studies on skeletal muscle actin indicate that the metal and nucleotide binding sites are separate. *Biochemistry* 19: 5912-5916.
- 18. Barden JA, dos Remedios CG. (1981) Crystalline actin tubes. III The interaction of scandium and yttrium with skeletal muscle actin. *Biochimica et Biophysica Acta* 672: 25-32.
- 19. Barden JA, Hambly, BD, dos Remedios CG. (1981) A comparison of the binding of myosin and spectrin oligomers to actin. *Biochemistry International* 2: 411-419.
- 20. dos Remedios CG. (1981) Lanthanide ion probes of calcium-binding sites on cellular membranes. *Cell Calcium* 2: 29-51.
- 21. Finlayson PJ, dos Remedios CG. (1981) Differences between cardiac and skeletal muscle actins. *Journal of Cellular and Molecular Cardiology* 13: 1081-1086.
- 22. Barden JA, Tulloch PA, dos Remedios CG. (1981) Crystalline actin tubes. IV Structural information on actin monomers obtained from computer-averaged lattice images. *Journal of Biochemistry* 90: 287-290.
- 23. Curmi PMG, Barden JA, dos Remedios CG. (1982) Conformational studies on G-actin containing bound lanthanide ions. *European Journal of Biochemistry* 122: 239-244.
- 24. Barden JA, Grant NJ, dos Remedios CG. (1982) Identification of the nucleus of actin polymerization. *Biochemistry International* 5: 685-692.
- 25. Barden JA, Curmi PMG, dos Remedios CG. (1982) Crystalline actin tubes. V The effect of Th<sup>4+</sup> on actin and the role of ionic charge in tube formation. *Journal of Biochemistry* 92: 1319-1323.
- 26. Fisher AJ, Curmi PMG, Barden JA, dos Remedios CG. (1983) A reinvestigation of actin monomer conformation under non-polymerizing conditions based on rates of enzymatic digestion and ultraviolet difference spectroscopy. *Biochimica et Biophysica Acta* 748: 220-229.
- 27. Barden JA, Wu C-S, dos Remedios CG. (1983) Actin monomer conformation under polymerizing conditions studied by proton nuclear magnetic resonance and circular dichroism spectroscopy. *Biochimica et Biophysica Acta* 748: 230-248.
- 28. Hambly BD, Raison RL, dos Remedios CG. (1983) Monoclonal antibodies directed against skeletal muscle actin. *Biochemistry International* 7: 739-746.
- 29. Curmi PMG, Barden JA, dos Remedios CG. (1984) Actin tube formation. Effect of commonly used solvent conditions. *Journal of Muscle Research and Cell Motility* 5: 423-430.
- 30. dos Remedios CG, Cooke R. (1984) Fluorescence energy transfer between probes in actin and probes on myosin. *Biochimica et Biophysica Acta*. 788: 193-205.

- 31. Barden JA, dos Remedios CG. (1984) Conformational changes in actin resulting from Ca<sup>2+</sup>/Mg<sup>2+</sup> exchange as detected by proton NMR spectroscopy. *European Journal of Biochemistry* 146: 5-8.
- 32. dos Remedios CG, Barden JA. (1985) The environment of the high affinity cation binding site on actin and the separation between cation and ATPase sites as revealed by proton NMR and fluorescence spectroscopy. *Journal of Biochemistry* 96: 913-921.
- 33. Miki M, Barden JA, Hambly BD, dos Remedios CG. (1986) Fluorescence energy transfer between Cys-10 residues in actin filaments. *Biochemistry International* 12: 725-731.
- 34. Hambly, BD, Barden JA, Miki, M, dos Remedios CG. (1986) Structural and functional domains on actin. *BioEssays* 4: 124-128.
- 35. Bennetts BH, Burnett L, dos Remedios CG. (1986) Differential co-expression of a-actin genes within the human heart. *Journal of Molecular and Cellular Cardiology* 18: 993-996.
- 36. Miki M, Barden JA, dos Remedios CG. (1986) Fluorescence energy transfer between ATP and Cys-10 on actin. *Biochimica et Biophysica Acta* 872: 76-82.
- 37. Miki M, Barden JA, dos Remedios CG. (1986) The distance separating Cys-10 from the high affinity metal binding site in actin. *Biochemistry International* 12: 807-813.
- 38. Miki M, Hambly BD, dos Remedios CG. (1986) Fluorescence transfer between nucleotide binding sites in F-actin. *Biochimica et Biophysica Acta* 871: 137-141.
- 39. Barden JA, Miki M, dos Remedios CG. (1986) Selective labelling of Cys-10 on actin. *Biochemistry International* 12: 95-101.
- 40. Miki M, Barden JA, dos Remedios CG. (1986) The distance separating Cys-10 from the high-affinity metal binding site in actin. *Biochemistry International* 12: 807-813.
- 41. Barden, JA, dos Remedios CG. (1987) Fluorescence resonance energy transfer between sites in G-actin. The spatial relationship between Cys-10, Tyr-69, Cys-374, the high affinity metal and the nucleotide. *European Journal of Biochemistry* 168: 103-109.
- 42. Barden JA, Miki M, Hambly BD, dos Remedios CG. (1987) Localization of the phalloidin and nucleotide binding sites on actin. *European Journal of Biochemistry* 162: 583-588.
- dos Remedios CG, Miki M, Barden JA. (1987) Fluorescence energy transfer measurements in actin and myosin. A critical review. *Journal of Muscle Research and Cell Motility* 8: 97-117.
- 44. Miki M, Barden JA, dos Remedios CG. (1987) The spatial relationship between the nucleotide site, Lys-61 and Cys-374 in actin, in *Actin*, Pp. 33-37.
- 45. Miki M, Barden JA, dos Remedios CG, Phillips L, Hambly BD, (1987) Interaction of phalloidin with actin. European Journal of Biochemistry 165: 125-130.
- 46. Miki M, Barden JA, dos Remedios CG. (1987) Spatial relationship between the nucleotide-binding site, Lys-61 and Cys-374 in actin and a conformational change induced by myosin subfragment-1. European Journal of Biochemistry 168: 339-345.
- 47. Kuwayama H, Miki M, dos Remedios CG. (1988) The effect of the replacement of ADP with a photoaffinity ATP analogue, 2-azido-ADP, in F-actin on its function. *FEBS Letters* 250: 328-330.

- 48. Barden JA, Bennetts BH, dos Remedios CG, Hambly BD. Miki M, Phillips L. (1988) Structure and function of contractile proteins. *The Australian Journal of Paediatrics* 24: 31-33.
- 49. Miki M, dos Remedios CG. (1988) Fluorescence quenching studies of fluoresce in attached to Lys-61 or Cys-374 in actin. *Journal of Biochemistry* 104: 232-235.
- 50. Barden JA, Miki M, Hambly BD, dos Remedios CG. (1988) A proposed mechanism for the binding of phalloidin to actin. *Molecular and Cellular Biology* 7: 19-25.
- 51. Barden JA, Phillips L, Cornell BA, dos Remedios CG. (1989) <sup>19</sup>F NMR studies of the interaction of selectively labelled actin and myosin. *Biochemistry* 28: 5895-8901.
- 52. Miki M, dos Remedios CG. (1990) A determination of the radial coordinate of Try-69 in F-actin using fluorescence energy transfer. *Biochemistry International* 22: 125-132.
- 53. Bao S, King NJC, dos Remedios CG. (1990) Elevated MHC-I and MHC-II in cultured human embryonic myoblasts following stimulation with gamma-interferon. *Immunology and Cell Biology* 68: 235-242.
- 54. O'Donoghue SI, Miki M, dos Remedios CG. (1991) Removing the C-terminal residues of actin affects the filament structure. Archives of Biochemistry and Biophysics 293: 110-116.
- 55. Wilson GJ, dos Remedios CG, Stephenson DG, Williams DA. (1991) Effects of sulfhydryl modifications using 5, 5'-dithiobis(2-nitrobenzoic acid) on skinned rat skeletal muscle fibres. *The Journal of Physiology* 437: 409-430.
- 56. Phillips L, Separovic F, Cornell BA, Barden JA, dos Remedios CG. (1991)
  Actin dynamics studied by solid state NMR spectroscopy. *European Biophysics Journal* 19: 147-155.
- 57. Ye P, Harris PJ, dos Remedios CG. (1991) Detection of cardiac myosin light chain I by monoclonal antibody in the patients with acute myocardial infarction. Chung Hua Hsin Hsueh Kuan Ping Tsa Chih. 19: 308-310 (in Chinese).
- 58. Miki M, O'Donoghue SI, dos Remedios CG. (1992) Structure of actin observed by fluorescence resonance energy transfer spectroscopy. *Journal of Muscle Research and Cell Motility* 13: 132-145.
- Bao S, King NJC, dos Remedios CG. (1992) Flaviviruses up-regulate MHC antigens on human embryonic skeletal myoblasts: A virus-induced model of autoimmune disease. *Muscle and Nerve* 15: 1271-1277.
- 60. O'Donoghue SI, Hambly BD, dos Remedios CG. (1992) Models of actin monomer and filament from fluorescence resonance-energy transfer *European Journal of Biochemistry* 205: 591-601.
- 61. Boey W, Everett AW, Kendrick-Jones J, Sleep J, dos Remedios CG. (1992) Uncoupling of actin-activated myosin ATPase activity from actin binding by a monoclonal antibody directed against the N-terminus of myosin light chain-1. *Biochemistry* 31: 4090-4095.
- 62. Trahair T, Yeoh T, Cartmill T, Keogh A, Spratt P, Chang V, dos Remedios CG, Gunning P. (1993) Myosin light chain gene expression associated with diseased states of the human heart. *Journal of Molecular and Cellular Cardiology* 26: 577-585.

- 63. Boey W, Huang W, Bennetts BH, Sparrow J, dos Remedios CG, Hambly BD. (1994) Fluorescence resonance energy transfer within the regulatory light chain of myosin. *European Journal of Biochemistry* 219: 603-610.
- 64. Moens P, Yee D, dos Remedios CG. (1994) Determination of the radial coordinate of Cys-374 in F-actin using fluorescence resonance energy transfer spectroscopy: Effect of phalloidin on polymer assembly. *Biochemistry* 33: 13102-13108.
- 65. Bao S, dos Remedios CG, King NJC. (1994) Ontogeny of MHC antigen expression in cultured human embryonic skeletal myoblasts. *Transplantation*. 58: 1-7.
- 79. dos Remedios CG, Moens PDJ. (1995) Fluorescence resonance energy transfer spectroscopy is a reliable "ruler" for measuring structural changes in proteins Dispelling the problem of the unknown orientation factor. *Journal of. Structural Biology* 115: 175-185.
- 80. dos Remedios CG, Moens PDJ. (1995) Actin and the actomyosin interface: A review. *Biochimica et Biophysica Acta* 1228: 99-124.
- 81. Yao M, Keogh A, Spratt P, dos Remedios CG, Kiessling PC. (1996) Elevated DNase I levels in human idiopathic dilated cardiomyopathy: An indicator of apoptosis? *Journal of Molecular and Cellular Cardiology* 28: 95-101.
- 82. dos Remedios CG, Berry D, Carter LK, Coumans JV, Heinke ME, Kiessling PC, Seeto RK, Trahair T, Yao M. (1996) Different electrophoretic techniques produce conflicting data in the analysis of myocardial samples from dilated cardiomyopathy patients. *Electrophoresis* 17: 235-238.
- 83. Kekic M, Huang W, Moens PDJ, Hambly BD, dos Remedios CG. (1996) Distance measurements near the myosin head-rod junction using fluorescence spectroscopy. *Biophysical Journal* 71: 40-47.
- 84. Moraczewska J, Strzelecka-Golaszewska H, Moens PDJ, dos Remedios CG. (1996) Structural changes in the small domain of actin detected by fluorescence resonance energy transfer spectroscopy. *Biochemical Journal* 317: 605-611.
- 85. Moens PDJ, dos Remedios CG. (1997) A conformational change in F-actin when myosin binds: Fluorescence resonance energy transfer detects an increase in radial coordinate of Cys-374. *Biochemistry* 36: 7353-7360.
- 86. Carter LK, Christopherson RI, dos Remedios CG. (1997) Analysis of the binding of deoxyribonuclease I to G-actin by capillary electrophoresis. *Electrophoresis* 18: 1054-1058.
- 87. Ishiwata S, Miki M, Shin I, Funatsu T, Yasuda K, dos Remedios CG. (1997) Inter-head distances in myosin attached to F-actin estimated by fluorescence energy transfer spectroscopy. *Biophysical Journal* 73: 895-904.
- 88. Coumans JVF, Humphery-Smith I, dos Remedios CG. (1997) Two-dimensional gel electrophoresis of actin-binding proteins isolated by affinity chromatography from human skeletal muscle. *Electrophoresis* 18: 1079-1085.
- 89. Coumans JVF, Yeoh T, Seeto RK, Keogh A., Brennan K, Gunning P, Hardeman E, dos Remedios CG. (1997) Actin-binding proteins in mouse C2 myoblasts and myotubes: A combination of affinity chromatography and two-dimensional gel electrophoresis. *Journal of Molecular and Cellular Cardiology* 29: 895-905.
- 90. dos Remedios CG, Simpson R. (1998) Bright sparks in Australian 2-DE: Report on the fourth annual conference of the Australian Electrophoresis Society. *Electrophoresis* 19: 807-808.

- 91. Berry D, Yao M, Barden JA, Balcar VJ, Hansen MA, Bennett MR, Keogh A, dos Remedios CG. (1998) Alterations in the expression of P2X1 receptors in failing and non-diseased human atria. *Electrophoresis* 19: 856-859.
- 92. Coumans JVF, dos Remedios CG. (1998) Actin-binding proteins in mouse C2 myoblasts and myotubes: A combination of affinity chromatography and two-dimensional gel electrophoresis. *Electrophoresis* 19: 826-833.
- 93. Heinke MY, Wheeler CH, Chang D, Einstein R, Drake-Holland A, Dunn MJ, dos Remedios CG. (1998) Protein changes observed in pacing-induced heart failure using two-dimensional electrophoresis. *Electrophoresis* 19: 2021-2030.
- 94. Jiang L, Huang Y, Yuasa T, Hunyor S, dos Remedios CG. (1999) Elevated DNase activity and caspase expression in association with apoptosis in failing sheep left ventricles. *Electrophoresis* 20: 2046-2052.
- 95. Heinke MY, Wheeler CH, Yan JX, Amin V, Chang D, Einstein R, Dunn MJ, dos Remedios CG. (1999) Changes in myocardial protein expression in pacing-induced canine heart failure. *Electrophoresis* 20: 2086-2093.
- 96. Walsh B, dos Remedios CG. (1999) Expansion, diversity and innovation in Australian electrophoresis. *Electrophoresis* 20: 2037-2038.
- 97. Berry D, Barden JA, Balcar VJ, Keogh A, dos Remedios CG. (1999) Increase in expression of P2X1 receptors in the atria of patients suffering from dilated cardiomyopathy. *Electrophoresis* 20: 2059-2064.
- 98. Kekic M, dos Remedios CG. (1999) Electrophoretic monitoring of pollutants: Effect of cations and organic compounds on protein interaction monitored by native gel electrophoresis. *Electrophoresis* 20: 2053-2058.
- 99. Berry D, Balcar VJ, Barden JA. Keogh A, dos Remedios CG. (2000) Changes in P2X<sub>1</sub> receptors in human left ventricles and their relationship to the ecto-ATPase α-sarcoglycan (adhalin). *Electrophoresis* 17: 3857-3862.
- 100. Chhabra D, Nosworthy N, dos Remedios CG. (2000) The interactions of actin with cofilin and DNase I are regulated by nucleotides and divalent cations. *Electrophoresis* 17: 3863-3870.
- 101. Hambly BD, Walsh BJ, dos Remedios CG. (2000) Electrophoresis a multidisciplinary and unifying technology. *Electrophoresis* 17: 3781-3783.
- 102. Jiang L, Tsubakihara M, Heinke MY, Yao M, Keogh A, dos Remedios CG, Nosworthy N. (2001) Heart failure and apoptosis: Electrophoretic methods support data from micro- and macro-arrays: A critical review of genomics and proteomics. *Proteomics* 1: 1481-1488.
- 103. Heinke MY, Yao M, Chang D, Einstein R, dos Remedios CG. (2001) Apoptosis of ventricular and atrial myocytes from pacing-induced canine heart failure. Cardiovascular Research 49: 127-134.
- 104. Berry DA, Keogh A, dos Remedios CG. (2001) Nuclear membrane proteins in failing human dilated cardiomyopathy. *Proteomics* 1: 1507-1512.
- 105. Nosworthy NJ, Kekic M, dos Remedios CG. (2001) The affinity of chick cofilin increases when actin is complexed with DNase I: Formation of a cofilin-actin-DNase I ternary complex. *Proteomics* 1: 1513-1519.
- 106. Belov L, de la Vega O, dos Remedios CG, Mulligan SP, Christopherson RI. (2001) Immunophenotyping of leukemias using a cluster of differentiation antibody microarray. Cancer Research 61: 4483-4489.
- 107. Kekic M, Nosworthy NJ, Dedova IV, Collyer CA, dos Remedios, CG. (2001) Regulation of cytoskeleton assembly: A role for a ternary complex of actin with two actin-binding proteins. *Results & Problems in Cell Differentiation* 32: 165-79.

- 108. Moens PDJ, dos Remedios CG. (2001) An analysis of models of F-actin using fluorescence resonance energy transfer spectroscopy. *Results & Problems in Cell Differentiation* 32:59-77
- 109. dos Remedios CG, Thomas DD. (2001) An overview of actin structure and actin-binding proteins. Results & Problems in Cell Differentiation 32: 1-7.
- 110. Bains NS, Gorbatyuk VY, Nosworthy NJ, Robson SA, Maciejewski MW, dos Remedios CG, King GF. (2002) Backbone and side-chain <sup>1</sup>H, <sup>15</sup>N, and <sup>13</sup>C assignments for chick cofilin. *Journal of Biomolecular NMR* 22: 198-199.
- 111. Dedova IV, Dedov V, Nosworthy NJ, Hambly BD, dos Remedios CG. (2002) Cofilin and DNase I affect the conformation of the small domain of actin. *Biophysical Journal* 82: 3134-3143.
- 112. Heller AC, Marucci DD, Dunn T, Barr EM, Houang M, dos Remedios CG. (2002) The inguinal canal 'lipoma'. *Clinical Anatomy* 15: 280-285.
- 113. Lal S, Christopherson RI, dos Remedios CG. (2002) Antibody microarrays: An embryonic but rapidly growing technology. *Drug Discovery Today* 7: S143-S149.
- 114. Steel BC, Bilek MM, McKenzie DR, dos Remedios CG. (2002) A technique for microsecond heating and cooling of a thin (submicron) biological sample. *European Biophysical Journal* 31: 378-382.
- 115. Mahanivong C, Wright JP, Kekic M, Pham DK, dos Remedios CG, and Nicolau DV. (2002) Manipulation of the motility of protein molecular motors on microfabricated substrates. *Biomedical Microdevices* 4: 111-116.
- 116. Wright JP, Pham DK, Mahanivong C, Kekic M, dos Remedios CG, Nicolau DV. (2002) Micropatterning of myosin on O-acryloyl acetophenone oxime (AAPO), layered with bovine serum albumin (BSA). *Biomedical Microdevices* 4: 205-211.
- 117. Jiang L, Huang, Y, Hunyor S, dos Remedios CG (2002) Cardiomyocyte apoptosis is associated with increased wall stress in chronic failing left ventricle. *European Heart Journal* 24: 742-751.
- 118. Chhabra D, Bao S, dos Remedios CG. (2002) The distribution of cofilin and DNase I in vivo. *Cell Research* 12: 207-214.
- 119. Court NW, dos Remedios CG, Cordell J, Bogoyevitch MA. (2002) Cardiac expression and subcellular localization of the p38 mitogen-activated protein kinase member, Stress-activated protein kinase-3 (SAPK3). *Journal of Molecular and Cellular Cardiology* 34: 413-426.
- 120. dos Remedios CG, Chhabra D, Kekic M, Dedova IV, Tsubakihara M, Berry DA, Nosworthy NJ. (2003) Actin and actin binding proteins: Regulation of cytoskeletal microfilaments. *Physiological Reviews* 83: 433-473.
- 121. Dunn T, Heller CA, McCarthy SW, dos Remedios CG. (2003) The trochanteric subgluteus maximus bursa: An anatomical study of prevalence and structure. *Clinical Anatomy* 16: 233-240.
- dos Remedios CG, Liew CC, Allen PD. Winslow RL, Van Eyk JE, Dunn MJ.
   (2003) Genomics, proteomics and bioinformatics of human heart failure.
   Journal of Muscle Research and Cell Motility 24: 251-260.
- 123. Ng DCH, Court NW, dos Remedios CG, Bogoyevitch MA. (2003) Activation of signal transducer and activator of transcription (STAT) pathways in failing human hearts. *Cardiovascular Research* 57: 333-346.
- 124. Jiang L, Huang, Y, Hunyor S, dos Remedios CG (2003) Cardiomyocyte apoptosis is associated with increased wall stress in chronic failing left ventricle. *European Heart Journal*. 24: 742-751.

- 125. Tsubakihara M. Williams NK, Keogh A, dos Remedios C.G. (2004) Comparison of gene expression between left atria and left ventricles from non-diseased humans. *Proteomics* 4: 261-270.
- 126. dos Remedios CG. (2004) The 32<sup>nd</sup> European Muscle Conference. *Journal of Muscle Research and Cell Motility* 25: 3-5.
- 127. Dedova IV, Nikolaeva O, Valeria P, Mikhailova V, dos Remedios CG, Levitsky DI. (2004) Two opposite effects of cofilin on the thermal unfolding of F-actin: a differential scanning calorimetric study. *Biophysical Chemistry* 110: 119-128.
- 128. Steel BD, Bilek MM, dos Remedios CG, McKenzie DR. (2004) Apparatus for exposing cell membranes to rapid temperature transients. *European Biophysics Journal* 33: 117-120.
- 129. Lal S, Lui R, Nguyen L, Macdonald P, Denyer G, dos Remedios CG. (2004) Increases in leukocyte CD antigen expression during cardiopulmonary bypass in patients undergoing heart transplantation. *Proteomics* 4: 1918-1926.
- 130. Martinez-Neira R, Kekic M, Nicolau D, dos Remedios CG. (2004) A novel biosensor for mercuric ions based on motor proteins. *Biosensors and Biotechniques* 20: 1428-1432.
- 131. Borovikov YuS, Dedova IV, dos Remedios CG. Vikhoreva NN, Vikhorev PG, Avrova SV, Hazlett TL, Van Der Meer BW. (2004) Fluorescence depolarization of actin filaments in reconstructed myofibers: The effect of S1 or pPDM-S1 on movements of distinct areas of actin. *Biophysical Journal* 86: 3020-3029.
- 132. dos Remedios CG. (2004) AES is reborn as AEPS. Proteomics 4: 1857.
- 133. Dedova IV, Avrova SV, Vikhoreva NN, Vikhorev RG, Hazlett TL, Van der Meer W, dos Remedios CG, Borovikov YuS. (2004) Conformational changes of actin induced by strong or weak myosin subfragment-1 binding. [Russian] *Tsitologiia*. 46: 719-734.
- 134. Ramdutt D, Lui R, Boswell RW, dos Remedios CG, Charles C, Bilek MM, McKenzie DR. (2005) Development of the nanotiter plate for use in antibody and cell array technologies. SPIE Biomedical Applications of Micro- and Nano-engineering 5651: 409-417.
- 135. Jiang L, Bardini M, dos Remedios CG, Burnstock G (2005) P2X1 receptors are closely associated with connexin 43 in human ventricular myocardium. *International Journal of Cardiology* 98: 291-297.
- 136. Chhabra D, dos Remedios CG. (2005) Cofilin, actin and their complex observed in vivo using fluorescence resonance energy transfer.. *Biophysical Journal* 89: 1902-1908.
- 137. Dedova IV, Nikolaeva OP, Safer D, De La Cruz EM, CG dos Remedios (2006) Thymosin β<sub>4</sub> induces a conformational change in actin monomers. *Biophysical Journal* 90: 985-992.
- 138. dos Remedios CG. (2005) The 32<sup>nd</sup> European muscle conference. Journal of Muscle Research and Cell Motility 25: 3-5.
- 139. Chhabra D, Nosworthy NJ, dos Remedios CG. (2005) The N-terminal fragment of gelsolin inhibits the interaction of DNase I with isolated actin, but not with the cofilin-actin complex. *Proteomics* 5: 3131-3136.
- 140. Steel BC, McKenzie DR, Bilek MMM, Nosworthy NJ, dos Remedios CG (2006) Nanosecond responses of protein to ultra-high temperature pulses. Biophysical Journal 91: L66-L68

- 141. Gorbatyuk VY, Nosworthy NJ, Robson SA, Naresh PS, Bains NPS, Maciejewski MW, dos Remedios CG, Glenn F. King (2006) Mapping the phosphoinositide-binding site on chick cofilin explains how PIP<sub>2</sub> regulates cofilin-actin interaction. *Molecular Cell* 24: 511-522.
- Narolska NA, Piroddi N, Belus A, Boontje NM, Scellini B, Deppemann S, Zaremba R, Musters RJ, dos Remedios CG, Jaquet K, Foster DB, Murphy AM, van Eyk JE, Tesi C, Poggesi C, van der Velden J, Stienen GJM. (2006) Impaired diastolic function after exchange of endogenous troponin I with C-terminal truncated troponin I in human cardiac muscle. Circulation Research 99: 1012-1020.
- 143. dos Remedios, CG. The regulation of muscle contraction: As in life, it keeps getting more complex. *Biophysical Journal* 93: 4097-4098. 2007.
- 144. Brown A, Lattimore J-D, McGrady M, Sullivan D, Dyer W, Braet F, dos Remedios CG. CD antibody arrays identify significant differences in leukocytes between stable and unstable angina. *Proteomics Clinical Applications* 1: 90-98. 2007.
- 145. Gan BK, Nosworthy NJ, McKenzie DR, dos Remedios CG, Bilek MMM. Plasma immersion ion implantation treatment of polyethylene for enhanced binding of active horseradish peroxidase. *J Biomed Mater Res A*. (accepted 15 May 2007). 2007 Sep 5; [Epub ahead of print].
- 146. Zaremba R, Merkus D, Hamdani N, Lamers JMJ, Paulus WJ, dos Remedios C, Duncker DJ, Stienen GJM, van der Velden J. (2007) Quantitative analysis of myofilament protein phosphorylation in small cardiac biopsies. *Proteomics Clinical Applications* 1: 1285-1290.
- 147. Nicolau DV, Solana G, Kekic M, Fulga F, Mahanivong C, Wright J, dos Remedios CG. (2007) Surface hydrophobicity modulates the operation of actomyosin-based dynamic nanodevices. *Langmuir*. 23(21):10846-10854.
- 148. Ho JPY, Nosworthy NJ, Bilek MMM, Gan BK, McKenzie DR, Chu PK, dos Remedios CG. (2007) Plasma-treated polyethylene surfaces fir improved binding of active protein. *Plasma Processes and Polymers* 4: 583-590.
- 149. Ho JWK, Stefani M, dos Remedios CG, Charleston MA. (2008) Differential variability analysis of gene expression and its application to human diseases. *Bioinformatics* 24: i390-i398.
- 150. Martinez-Neira R, dos Remedios CG, Mackay I (2008) An actin-myosin functional motility assay for analysis of smooth muscle (anti-microfilament) autoantibodies in human serum. *Journal of Immunological Methods* (in press).
- 151. Hamdani N, Kooi Vj, van Dijk S, Merkus D, Paulus WJ, dos Remedios C, Duncker DJ, Ger J.M. Stienen1, van der Velden J. (2008) Sarcomeric dysfunction in heart failure. *Cardiovascular Research* 77: 649–658.

#### **Edited Books**

- 152. dos Remedios CG, and Barden JA. (1983) Actin Structure and Function in Muscle and Nonmuscle Cells. Academic Press, Sydney. 336 pp.
- 153. dos Remedios CG, and Thomas DD (eds). (2001) Molecular Interactions of Actin: Actin Structure and Actin-Binding Proteins. Volume 32 in the series Results and Problems in Cell Differentiation. Springer Verlag, Heidelberg.
- 154. Thomas DD, and dos Remedios CG. (eds) (2002) Molecular Interactions of Actin: Actin-Myosin Interaction and Actin-Based Regulation. Volume 36 in

- the series Results and Problems in Cell Differentiation. Springer Verlag, Heidelberg.
- 155. dos Remedios CG (2006) Editor. The Amazing Human Body. ISBN 0-9775211-0-9.
- 156. dos Remedios CG, and Chhabra D. (2007) Actin and Actin Binding Proteins in Human Disease. Springer, New York. Pp 334.

# **Chapters in Books**

- 157. dos Remedios CG, Barden JA, Valois AA, and Tulloch PA. (1980) Actin tube structures formed by Gd<sup>3+</sup> and analyzed by electron microscopy and electron diffraction, in *Fibrous Proteins: Scientific, Industrial and Medical Aspects* (Eds. Parry DAD, and Creamer LK) Academic Press, New York. Pp. 23-32.
- 158. Curmi PMG, Fisher AJ, Barden JA, and dos Remedios CG. (1983) Does the F-ATP-actin monomer exist? in *Actin Structure and Function in Muscle and Nonmuscle Cells* (Eds. dos Remedios CG, and Barden JA) Academic Press, Sydney. Pp. 115-123.
- 159. Curmi, P.M.G., Van Donkelaar, A., Tulloch, P.A. and dos Remedios, C.G. (1983) A comparison of the unit cell of dried and hydrated actin microcrystals, in *Actin Structure and Function in Muscle and Nonmuscle Cells* (Eds. dos Remedios CG, and Barden JA) Academic Press, Sydney. Pp. 45-52.
- 160. Barden JA, and dos Remedios CG. (1983) High resolution proton NMR studies on G-actin, in *Actin Structure and Function in Muscle and Nonmuscle Cells* (Eds. dos Remedios CG, and Barden JA) Academic Press, Sydney. Pp. 53-62.
- 161. dos Remedios CG, Grant NJ, and Barden JA. (1983) Identification of the nucleus of polymerization using high performance liquid chromatography, in *Actin Structure and Function in Muscle and Nonmuscle Cells* (Eds. dos Remedios CG, and Barden JA) Academic Press, Sydney. Pp. 107-114.
- 162. Hambly BD, dos Remedios CG, and Raison RL. (1983) Monoclonal antibodies to purified G-actin, in Actin Structure and Function in Muscle and Nonmuscle Cells (Eds. dos Remedios CG, and Barden JA) Academic Press, Sydney. Pp. 183-191.
- 163. dos Remedios CG, Hambly BD, and Barden JA. (1985) On the nucleotide binding site of actin, in *Cell Motility: Mechanism and Regulation* (Eds. Ishikawa H, Hatano S, and Sato H) University of Tokyo Press, Tokyo. Pp. 31-38.
- 164. Barden JA. Miki M, Hambly BD, and dos Remedios CG. (1986) Identification of the nucleotide and phalloidin binding sites on actin, in *Contemporary Themes in Biochemistry* (Eds. Kon OL, Chung MCM, Huang PLH, Leong SF, Thiayagarajah P, and Wong PTH) Cambridge University Press, Cambridge. Pp. 548-549.
- 165. dos Remedios CG. Boey W, Yeoh T, Morgan G, and Nicholson GA. (1990)

  Duchenne muscular dystrophy: A protein chemists' perspective of its diagnosis, the protein defect and associated changes, in *Pathogenesis of Duchenne Muscular Dystrophy in the Light of Recent Discoveries*. (Eds. Kakulas B, and Mastaglia FL) Raven Press, New York. Pp. 11-23.
- 166. dos Remedios CG. (1990) The Molecular genetics of Xp21.2 muscular dystrophy, in *Pathogenesis of Duchenne Muscular Dystrophy in the Light of*

- Recent Discoveries. (Eds. Kakulas B, and Mastaglia FL) Raven Press, New York. Pp. pp 193-201.
- 167. Trahair T, Yeoh T, Cartmill T, Chang V, Gunning P. and dos Remedios CG. (1990) Is atrial myosin light chain 1 a marker of end stage failure in dilated cardiomyopathy? in *Cell Motility* (ed. M Marechál) Intercept Press, Hampshire. Pp. 181-187.
- dos Remedios CG, Kiessling PC, and Hambly BD. (1993) DNase I binding induces a conformational change in the actin monomer, in *Synchrotron Radiation in the Biosciences* (Eds. Chance B, Sakabe N, and Sasaki S) Oxford University Press, Oxford. Pp. 418-425.
- 169. Hambly BD, Kiessling PC, and dos Remedios CG. (1993) Nucleotide exchange in F-actin is influenced by tropomyosin-troponin, phalloidin, DNase I and myosin binding *in* Actin: Biophysics, Biochemistry, and Cell Biology (Ed. Estes J, and Higgins J) Plenum Press, New York. 12 Pp.
- 170. dos Remedios CG, and Moens PDJ. (1999) Fluorescence resonance energy transfer applications in protein chemistry. in Resonance Energy Transfer (Eds Andrews DL, and Demidov AA) John Wiley & Sons Ltd, Chichester, 1-64.
- 171. Lui R, Brown A, Wu B, Wu B, Lin M-W, Thompson J, Braet F, Dyer W, Lattimore JD, Macdonald P, Adelstein S, and dos Remedios, CG (2007) Use of antibody microarrays in the analysis of inflammation, autoimmunity, viral infection, and cancer metastases, *in* Clinical Proteomics from Diagnosis to Therapy (eds JE Van Eyk, MJ Dunn), WileyVCH. Vol 2, part 7: 571-592.
- 172. Chhabra D and dos Remedios CG, (2007) Chapter 1. Actin: An overview of the structure and function. *In* Actin and Actin Binding Proteins in Human Disease. Springer, New York. 1-17.
- 173. dos Remedios CG, Nosworthy NJ. Chapter 12. The role of PIP2 in actin, actinbinding proteins and disease. *In* Actin and Actin Binding Proteins in Human Disease. Springer, New York. 290-297.
- 174. Stefani M, Tsubakihara M, Hambly BD, Liew CC, Allen PD, Macdonald PS, dos Remedios CG. (2007) Chapter 14. Actin and actin binding proteins in heart failure. *In* Actin and Actin Binding Proteins in Human Disease. Springer, New York. 318-334.

#### **Refereed Electronic Articles**

- dos Remedios CG (2000) The value of fundamental research. QA discussion paper prepared for the IUPAB Council. (http://www.iupab.org/)
- dos Remedios CG. (2001) Fluorescence resonance energy transfer, A molecular "ruler". in Encyclopedia of Life Sciences. Macmillan, London. (article A2979).
- 177. Lui R, Lal S, and dos Remedios CG (2004) Proteomics in cardiovascular disease. *Wiley Encyclopedia* (in press).
- 178. Chhabra D, and dos Remedios CG. (2005) Fluorescence resonance energy transfer (version 2.0) (A4170 16 pages). Electronic Life Sciences, Macmillan Press (www.els.net).
- 179. Nosworthy NJ, Tsubakihara M, and dos Remedios CG. (2006) Proteomics and genomics technology: Comparison in heart failure and apoptosis. *in* Encyclopedia of Life Sciences. The website for this electronic publication is: http://www.mrw.interscience.wiley.com/emrw/9780470015902/els/article/a000 6225/current/abstract

#### **Articles**

- 180. dos Remedios CG. (2000) The value of fundamental research. IUPAB News.
- 181. dos Remedios CG. (2000) El valor de la investigación básica. Ciencia Hoy (August-September) (article in Spanish).
- 182. Article by Rachel Nowak in *New Scientist* (September 1, 2001) (No 2306), P 20. "Frontiers, emerging technologies".
- 183. dos Remedios CG. (2004) Leukocytes as reporter probes of inflammatory and autoimmune disorders. IUPAB News No 49: 5-8.

#### **Patents**

- 184. Christopherson RI, and dos Remedios CG. (1999) Australian Patent. No. 767106, "An assay to detect a binding partner". Granted Feb 19, 2004
- 185. dos Remedios, C.G., Christopherson, R.I., and Celermajer, D. (2000) Australian Provisional Patent, "Diagnostic asasay".
- 186. dos Remedios CG, Cooke AR, and M Kekic. (2001) US Patent PCT/AU01/00099 "Biomolecular toxicity assay".
- 187. dos Remedios CG, Cooke AR, and M Kekic. (2007) European Patent Application No. 01902166.6 "Biomolecular toxicity assay".
- 188. dos Remedios CG, Cooke AR, and M Kekic. (2007) "Biomolecular toxicity assay". Divisional Australian Patent No 2007200433.